

Natalia Alward <alwardn@grafton-ma.gov>

8 Pine Street, Village at Grafton Woods Development

1 message

Jean E. Christy < JEChristy@tighebond.com>

Tue, Apr 13, 2021 at 2:04 PM

To: "killeenm@grafton-ma.go" <killeenm@grafton-ma.go>

Cc: "planningdept@grafton-ma.gov" <planningdept@grafton-ma.gov>

Mr. Killeen,

Thank you for your comments on the Fire Departments concerns of the Village at Grafton Woods Development at 8 Pine Street. I wanted to provide you with a response to your comments and an update with some additional information. Below are the comments that we have received to date from the Department, with our responses following in red.

- There is no indication of where the Fire Department Connection, or standpipe locations will be in relation to the fire hydrants Please see the attached figure identifying the anticipated location of the Fire Department Connection for each building, and hydrant locations throughout the development. Hydrants are circled in red and include 4 proposed hydrants and two existing hydrants on Pine Street. The mechanical system design for the buildings are still in development, but I expect this information will be available shortly to which we will provide the Fire Department with revised Site Plans.
- A fire hydrant needs to be located every 500 feet Please see the attached figure identifying hydrant locations throughout the development. If additional hydrant locations are recommended, we are happy to incorporate into the design.
- What weight will the reinforced turf support, as it must support the weight of the fire department's apparatus. Below is a snip from the reinforced turf design literature demonstrating maximum loading scenarios. The reinforced turf is designed for H/HS-20 loading with a gross maximum vehicle weight of 80,000 lbs.

Load Description¹

Heavy Fire Truck Access & H/HS-20 loading. Typical 110 psi (758 kPa) maximum tire pressure. Single axle loadings of 32 kips (145 kN), tandem axle loadings of 48 kip (220 kN). Gross vehicle loads of 80,000 lbs (36.3 MT). Infrequent passes

Light Fire Truck Access & H/HS-15 loading. Typical 85 psi (586 kPa) maximum tire pressure. Single axle loadings of 24 kips (110 kN). Gross vehicle loads of 60,000 lb (27.2 MT). Infrequent passes⁴

Utility & Delivery Truck Access & H/HS-10 loading. Typical 60 psi (414 kPa) maximum tire pressure. Single axle loadings of 16 kips (75 kN), Gross vehicle loads of 40,000 lbs (18.1 MT). Infrequent passes⁶

- The reinforced turf path around the residential building must be maintained in the winter to be free and clear of snow, and in the summer to be clear of tree branches and shrubbery Comment acknowledged. A property maintenance company will be responsible for regular maintenance and snow removal along the emergency access around the residential building.

A question has been raised by the development team regarding emergency vehicle access requirements for the retail area. Will a fire truck or ambulance be required to access the second level of the retail area from the main project development driveway? It may be best to discuss this one in person/virtual meeting as this layout is confusing and not abundtanly clear on our drawings yet.

Please feel free to give me a call anytime to discuss this project.

Thank you,

Jean E. Christy, PE | Senior Engineer

Tighe & Bond | 53 Southampton Road | Westfield, MA 01085 | 413.668.6019 (cell)

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Village at Grafton Woods Fire Hydrant Locations.pdf 2165K



